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Environmental Neglect: Other Casualties of Post-War Infrastructure Development

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ABSTRACT: Post-war societies have tended to look towards infrastructure development as a strategy for recovery and reconciliation; anticipating that improved connectivity can boost trade competitiveness, where this reorganization and new developments aiming to reshape how people relate with one another. Amidst these developments, the environment remains a forgotten victim, with habitats destroyed and livelihoods severely affected, to name a few. In this critical review, we draw from a selection of case studies, primarily Sri Lanka, to highlight the environmental ramifications from an over-emphasis on post-war infrastructure development. By evaluating the connection between natural resources, livelihoods and peacebuilding, we urge for a renewed attention towards the environment, an often-forgotten dimension in post-conflict agendas, in order to assure sustainable peacebuilding efforts.

KEYWORDS: Environment; Post-war infrastructure; Sri Lanka; Peacebuilding; Road development; Livelihoods

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Abstract:

Post-war societies have tended to look towards infrastructure development as a strategy for recovery and reconciliation; anticipating that improved connectivity can boost trade competitiveness, where this reorganization and new developments aiming to reshape how people relate with one another. Amidst these developments, the environment remains a forgotten victim, with habitats destroyed and livelihoods severely affected, to name a few. In this critical review, we draw from a selection of case studies, primarily Sri Lanka, to highlight the environmental ramifications from an over-emphasis on post-war infrastructure development. By evaluating the connection between natural resources, livelihoods and peacebuilding, we urge for a renewed attention towards the environment, an often-forgotten dimension in post-conflict agendas, in order to assure sustainable peacebuilding efforts.

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Introduction

This critical review intervention explores the ways in which several post-conflict societies tends to emphasize infrastructure development to bring stability and resolve ethnic tensions via economic progress and improvements in trade competitiveness, although often at the neglect of the environment. Proponents claim that roads, highways, airports and ports serve as an important conduit for fostering mobility and connectivity that allow wider, efficient networks of trade and production, and improved tourism. However, under this infrastructure explosion, the environment suffers; landscapes are paved over and habitats are sacrificed to make way for development projects.

In this review, we use a selection of case studies, primarily post-war Sri Lanka, to raise these environmental effects, a neglected dimension; and stress the central import of a safe environment in post-war and post-conflict societies (UNEP, 2009). We want to advocate it is a lacuna in both policy and research that needs closer scrutiny and investigation.

Infrastructure in Post-War Development Agendas

Infrastructure development is often a main priority for economy recovery and stabilization efforts. Destruction during the war has a drastic effect on economic and social development, causing loss of livelihoods, economic decline and an increase in unemployment. In this situation, repairing and expanding connective infrastructure is considered critical for economic growth and rebuilding society. For example, the (re)construction of road infrastructure reduces costs of production and transportation of goods and services, which improves productivity and further enhances the country's attractiveness to foreign investors. Apart from improved connectivity and accessibility that facilitates trade and economic linkages, it also eases access to essential services, such as education and healthcare, as well as opening access for rural communities to the market, which improves livelihood opportunities. Roads also increase security as improved accessibility reduces chances for illegal groups and bandits in remote areas to easily thrive. Additionally, improving connectivity across the region encourages *balanced* economic development, whereby distributing the development dividend equally across warring communities is an aspiration (Krieger & Meierrieks, 2016). In South Sudan, for example, the Juba Port that was built was not only intended to generate economic growth, but also to encourage reconciliation between the North and South through a network that allows distribution of goods between the two areas (JICA, 2011b). Infrastructure is therefore considered a prerequisite for economic development.

Conceptualised as "bridges for peace" and "roads to peace", infrastructure projects are frequently seen as a less controversial way of bringing conflicting communities together towards a shared post-war vision, peace-building and a new beginning. More than just an object, infrastructure is integrally related with social relations to become agents of change that encourages reorganisation of the networks and spaces in which different social actors relate with one another (Shouten & Bachmann, 2017). Alternatively, as Chowdhury (2016) astutely observes, infrastructure is also a form of governmentality for the post-war visions and anticipatory politics it encapsulates, whether it be modernity, mobility and ethnic reintegration. With roads, highways, bridges and ports as observable, concrete deliverables, infrastructure creates a sense of desire and hope, and facilitates the creation of new citizenships through aspirations of a new, collective future (Khan, 2006; Larkin, 2013; Chowdhury, 2016). However, while in some respect, infrastructure encourages ethnic reintegration and economic development, on the other hand, social relations are "arranged and limited through the built environment" that coincides with post-war visions (Bachmann & Shouten, 2018, pp. 386). Hence, infrastructure politics thus allow modern states to retain some degree of power, autonomy and control. Improved infrastructural networks can extend state authority and dominance by facilitating access for security forces across national peripheries to increase surveillance (Fairhead, 1992).

Under pressure to restore economic progress and security through infrastructure, the environment silently suffers from the impacts of reconstruction. Infrastructure constructs an urban-scape that reorganises social actors in a bid to patch cleavages and divisions from the war. What is less often recognised, is that the environment is equally important in peacebuilding, as it restores resource-based livelihoods, provides food security, and is also a shared common to bring conflicting communities together. Environmental degradation can become drivers of fragility, conflict and violence, thus creating divisions again; to this point we now turn.

War, Environment and Peace?

Wars create substantial environmental degradation, scarcity and exploitation of natural resources contributing to loss of livelihoods, forced migration and increased vulnerability to climate change risks. In the past decade for example, many wars have focused on controlling and exploiting scarce or high-value resources, such as fertile land and water in the Middle East and diamonds in the Democratic Republic of Congo (Ross, 2004; UNEP, 2009). Resource extraction and degradation can fuel conflict and grievances among the local population due to land appropriation, environmental hazards, and livelihood losses. The Sri Lankan civil war (1983 – 2009) had devastating repercussions on the environment, "the unpublicised victim of war" (Daily Mirror, 2018). Water systems were polluted, trees were cut down, crops were destroyed, and the explosive weaponry used in landmines and bombing have contaminated the soil, which has forced displacement and caused a loss of livelihoods. At least 50,000 coconut trees were impacted, and more than 2.5 million Palmyra palm trees – a tree that provides drought and wind resistance, and its fruits which are a staple food – were cut down to make bunkers during the war (Dathan, 2018). Landmines during the war had also caused injuries and deaths among several elephants, which are endangered species in Sri Lanka, and have also led to their habitat loss (Fernando et al., 2011).

Post-war agendas recognise the importance of sustainable peace-building and redevelopment, and purport to address some concerns about the environment, although in some cases, these professed concerns of environmental degradation used to justify state control of natural resources only exacerbates environmental stress and dispossession (Work, 2018). In the *Mahinda Chintana*, 10-year Development Plan for Sri Lanka, there is mention of rehabilitating lakes impacted during the war, protecting erosion-prone coasts, protecting the coastal and aquatic environment and rehabilitating damaged/endangered habitats (MFP, 2005). Apart from an emphasis on economic and infrastructure development, "the *Mahinda Chintana* goal also prevents adverse environmental repercussions...witnessed in some of the rapidly growing economies" (MFP, 2005: 3). Despite these considerations in Sri Lanka, the greater

emphasis on infrastructure to secure post-war economic recovery and restore national unity has led to neglected environmental damages impacting livelihoods and "[driving] a sharp wedge between the victims of war and the designers of the post-war development" (Gurung, 2017, np; see also Venugopal 2018).

For instance, the Hambantota Port, the Mattala Rajapaksa International Airport, expansion of the Colombo South Port, rehabilitation of roads and high ways, construction of luxury hotel resorts as well as the controversial Colombo Port City project illustrate these initiatives. The Colombo Port City, which plans to make Colombo a regional financial hub that could rival with Hong Kong, Singapore and Dubai, has raised several environmental concerns (Brown, Chan and Ruwanpura 2018). Firstly, the staggering volumes of granite used for building are extracted using explosives in the central hills is causing landslides in water catchment areas and water shortages (Qin, 2017). Furthermore, large-scale sand dredging and dumping required for land reclamation to build the Port City is causing coastal erosion; it is destroying coastal feeding, spawning grounds and coral reefs, which are essential for water filtration and supporting marine life (Daily Mirror, 2016; Corea, 2018). With the destruction of fishing grounds, in addition to the lack of consultation and transparency with the affected groups, fishing communities have suffered consequently from the loss of livelihoods. It is estimated that in Negombo alone, 30,000 fisherfolks and 600,000 engaged in related trade are impacted (Panap, 2017).

Apart from the Port City, there have also been growing concerns about deforestation in post-war Sri Lanka. Mining for materials to support the construction of roads, highways and resorts have aggravated deforestation, land degradation, biodiversity loss and pollution (Camisani, 2018). Clearance of forests for quarries and resorts fragment the available natural environments for elephants to roam in; infrastructure projects also cause pollution and damage to drinking water sources and irrigation systems. Known as "the world's emptiest airport", the majority of the newly built Mattala Rajapaksa International Airport was constructed on shrub lands on an elephant corridor, which has fragmented and destroyed the habitats of Sri Lankan elephants, placing the endangered species in an even more vulnerable position (Perera, 2018).

Consequently, farmers, fishing communities, religious leaders and civil society groups have mobilised to resist against infrastructure projects, frequently protesting on the street, petitioning, taking legal action particularly about inadequate procedures, and even a hunger strike for an end to the sand dredging. Communities are angered at the alleged corruption, the lack of consultation and transparency, and the lack of a proper socio-economic and environmental impact assessment (EIA), which led to the temporary suspension of the Port City project in 2015. The project has resumed after a supplementary EIA was provided, addressing issues, such as sand-dredging and the loss of livelihoods of fishing

communities, and now claiming to strive to "be the benchmark in environmental friendliness and sustainability" (Daily Mirror, 2017). However, the dissatisfaction still persists as public and environmental concerns are unaddressed, even as the project continues. Even for EIAs of Sri Lanka's transport infrastructure projects, the main problems identified ranged from accountability and monitoring systems, public participation, and lack of broad frameworks for environmental protection (Gamalath, Perera & Bandara, 2014).

In a study by Kovach & Conca (2016) on post-war agendas and institutional documents from seven war-torn societies (Afghanistan, Georgia, Haiti, Iraq, Liberia, Somalia and Sudan), it was found that governance, urban issues and infrastructural issues (water, sanitation, energy and pollution) were given greater emphasis compared to mining and environmental services, such as biodiversity, fisheries, coastal zones, ecosystem health and conservation. Environmental issues are addressed as cross-cutting issues, rather than a specific cluster of focus. Additionally, this may also reflect the importance of the visibility of outcomes in post-war agendas (Kovach & Conca, 2016). Compared to infrastructure, which offer concrete, tangible outputs, environmental services, such as fisheries and ecosystem health, are less visible and de-emphasised. The neglect and inadequate consideration of certain important environmental issues have dire consequences, increasing people's vulnerability to environmental hazards and threatening livelihoods. In Sudan and Afghanistan for example, the benefits of restarting the mining sector to generate export income and tax revenues are highlighted, but there is little to no mention on environmental degradation, soil and water pollution, and ecosystem imbalance caused by protracted wars (Kovach & Conca, 2016). In Peru, even though it has achieved high GDP growth after its internal war, deforestation has peaked and the promotion of legal crops have increased rates of landslides and flash floods (Baptiste et al., 2017).

Despite the greater emphasis on large infrastructure projects to boost economic recovery and peace-building, environmental issues have been subordinated, causing grievances to arise again. A sustainable, holistic approach to infrastructure is essential in a fragmented, unstable landscape where communal divisions persists. The connect between natural resources and livelihoods may mean restoring natural resource-based livelihoods that provide food and livelihood security, and opportunities for cooperation. Visibility and measurement should be devalued, as the environment needs primacy in an age of climate change. Termed as environmental peacebuilding, environmental cooperation and sustainable management of natural resources can foster peace and stability in post-conflict societies (Carius, 2008; Conca & Wallace, 2009; Krampe, 2017; Ide, 2018). Natural resources and environmental services are shared resources offering a platform for conflicting communities to come together and develop an agenda for environmental protection. While much still needs to be done to ensure the sustainable well-being of

our natural world is protected amidst infrastructure developments, a shared concern for the environment is slowly becoming a bridge between countries in conflict, such as the Middle and East, and the Democratic Republic of Congo, to nurture peace and strengthen trust (UNEP, 2009; Ide & Fröhlich, 2015). Post-conflict states should also acknowledge natural resource management as the foundation towards sustainable recovery and durable peace (Krampe, 2017).

Conclusion

Infrastructure may have its place in post-war communities, as, together with political settlements, they purportedly have the capacity to soften cleavages between conflicting communities through encouraging economic development, increasing trade competitiveness and enhancing the country's attractiveness to the rest of the world. However, as we have outlined through a cursory review of the literature, the environment is quite often a forgotten dimension in post-war infrastructure development, which if unaddressed, not only causes climate breakdown and ecocide, but can spark tensions and frustrate peace-building efforts. In an era of climate change, the absence of being attentive to environmental considerations is particularly telling; it is a register that can ill afford to be forgotten, especially given its consequences on societal well-being at various scales (Brown, Chan and Ruwanpura 2018).

These are particularly important considerations in an era where ports, roads and infrastructure are zealously constructed at an alarming rate, with the vision that it can build cooperation and connectivity within and between countries. One of the most notable schemes is the leviathan Belt and Road Initiative (BRI) under the Chinese government, that aims to create corridors and trade routes that connect East Africa, Europe, Russia, Southeast Asia, South Asia, as well as Central and Western Asia in order to build the New Silk Road of the 21st century (Hall 2019). While it seeks to promote cooperation and unroll a new culture of globalisation, there are accumulating concerns over the environmental risks and displacements of local communities from these infrastructure projects.

This has been most notable in the Cross-River Superhighway in Nigeria, the China-Pakistan Economic Corridor, and the Grand Inga Dam in Congo, where exploitation of natural resources, displacements, and severe damage of gorilla and elephant habitats, to name a few, have occurred. As the example of Sri Lanka in our review illuminates, environmental risks and damages can weaken the sustainability of cooperation and reconciliation if they are rendered secondary. Apart from Sri Lanka, there have been other post-war countries that have infrastructure projects as part of the reconciliation process. To name two examples, Ethiopia and Eritrea have introduced expressways, light rails and most

recently, have reopened roads that connect to the Red Sea ports in Eritrea as a part of reconciliation process from the war that ended in 2000. Outside of the BRI, the Japan International Cooperation Agency (JICA) has also been supporting road development network schemes in conflict-affected areas of Mindanao in the Philippines to promote sustainable peace through development. Amidst these infrastructure projects, it is hoped that there will be growing awareness of the necessity to place the environment as a priority in order to ensure sustainable, long-lasting peace and stability.

Our review has outlined the linkages between economic recovery, sustainable resource use and environmental quality should be recognised in post-war initiatives, as communities depend on the environment for its many services, whether it is livelihoods, food security or physical and mental health. Post-war development needs to consider the environment, which is often forgotten, and without which durable peace, economic equity and social justice are likely to remain elusive.

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